CHAPTER 2
CRITICAL LIFTS

This chapter provides guidelines for critical-lift determination and requirements for planning and performing a critical lift safely and judiciously.

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2.1 CRITICAL-LIFT DETERMINATION

a. An appointed person shall classify each lift into one of the DOE categories (ordinary, critical, or preengineered production) prior to planning the lift.

b. A lift shall be designated as a critical lift if collision, upset, or dropping could result in any one of the following:

1. Unacceptable risk of personnel injury or significant adverse health impact (onsite or offsite).

2. Significant release of radioactive or other hazardous material or other undesirable conditions.

3. Undetectable damage that would jeopardize future operations or the safety of a facility.

4. Damage that would result in unacceptable delay to schedule or other significant program impact such as loss of vital data.

c. A lift should also be designated as critical if the load requires exceptional care in handling because of size, weight, close-tolerance installation, high susceptibility to damage, or other unusual factors.

2.2 CRITICAL-LIFT REQUIREMENTS

a. Ensure that the requirements are met for ordinary lifts specified in each section of this standard for each particular equipment category.

b. The operating organization shall appoint a PIC for the entire operation. This person shall meet the definitions of appointed, designated, and qualified as described in Chapter 1, "Terminology and Definitions," and shall be present at the lift site during the entire lifting operation.

c. The PIC shall ensure that a pre-job plan or procedure is prepared that defines the operation and includes the following:

1. Identification of the items to be moved, the weight, dimensions, and center of gravity of the load, and any hazardous or toxic materials that are present

2. Identification of operating equipment to be used by type and rated capacity

3. Rigging sketches that include (as applicable):

i. Identification and rated capacity of slings, lifting bars, rigging accessories, and below-the-hook lifting devices.

ii. Load-indicating devices.

iii. Load vectors.

iv. Lifting points.

v. Sling angles.

vi. Boom and swing angles.

vii. Methods of attachment.

viii. Crane orientations.

ix. Other factors affecting equipment capacity.

4. Operating procedures and special instructions to operators including rigging precautions and safety measures to be followed as applicable.

d. Experienced operators who have been trained and qualified to operate the specific equipment to be used shall be assigned to make the lift.

e. Only designated, qualified signalers shall give signals to the operator. *However, the operator shall obey a STOP signal at all times, no matter who gives the signal.*

f. The procedure and rigging sketches shall be reviewed and approved by the responsible manager (or designee) and the responsible oversight organization (such as safety, quality assurance, or quality control) before the lift is made.

g. A pre-lift meeting involving participating personnel shall be conducted prior to making a critical lift. The critical lift plan/procedure shall be reviewed and questions shall be resolved.

h. If required by the critical lift procedure, a practice lift shall be done before the critical lift. Conditions for a practice lift should closely simulate actual conditions involving: weight, rigging selection and configuration, load movement path, and other relevant factors. Practice lifts should be done by the same crew, using the same lifting equipment.